## AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) A dry-type high-voltage load system apparatus having a high-voltage load system circuit comprising: a low-voltage bank comprised of a plurality of lower-capacity configuration banks for a low-voltage resistor circuits circuits each comprised of a plurality of low-voltage three-phase resistor circuits connected in parallel to each of a plurality of switches connected in parallel to an output terminal of a transformer input terminal of which is connected to a central breaker; and a high-voltage bank comprised of a plurality of lower-capacity configuration banks for a high-voltage resistor circuits connected in parallel to each of a plurality of high-voltage three-phase resistor circuits connected in parallel to each of a plurality of switches, said low-voltage bank and said high-voltage bank being connected in parallel to a high-voltage power generator through a said central breaker,

said low-voltage three-phase resistor circuit and said high-voltage three-phase resistor circuit each being comprised of resistor arrays in three phases, each of said resistor arrays being comprised of resistor elements connected in series, in a form of a Y-connection in which three resistor arrays are concentrated for reconciliation of their phases so that an isolated and independent neutral point unconnected commonly

to those of the other three-phase resistor circuits is formed, or in a form of a  $\Delta$ connection in which each of terminals terminal of said resistor arrays in three phases is connected to each of in-phase branch distribution lines of a power cable, each of said resistor elements comprising: a cylindrical outer tube made of metal and having an outer peripheral surface that is without any spiral fin; electrode rods inserted respectively from both ends of said outer tube; a resistive heat-generating wire wound spirally and extending between inner ends of said electrode rods inserted respectively from both ends of said outer tube; an a solidified insulating material filling up a space within between an internal surface of said outer tube so as to encase said resistive heat-generating wire and with said electrode rods and an internal surface of said outer tube and fired; and with cylindrical high-voltage proof insulating sleeves without any fins; said high-voltage proof insulating sleeves extractably encasing and being anchored at respective portions of the outer peripheral surface of said cylindrical outer tube, said respective portions being adjacent to both ends of the outer peripheral surface of said outer tube and anchored in portions adjacent to the both ends of said outer tube; and said insulating sleeves being to be positioned between said outer tube and one or more supports so that said outer said resistor element is supported by various the one or more supports.

## 2. (Withdrawn)

- 3. (Withdrawn)
- 4. (Withdrawn)
- 5. (Cancelled)
- 6. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 or 3, wherein said resistor array arrays are connected in the form of [[the]]  $\underline{a}$   $\Delta$ -connection to form said low-voltage three-phase resistor circuits and in the form of [[the]]  $\underline{a}$  Y-connection to form said high-voltage three-phase resistor circuits circuits.
  - 7. (Withdrawn)
  - 8. (Withdrawn)
  - 9. (Withdrawn)
  - 10. (Withdrawn)
  - 11. (Withdrawn)

Docket No. F-8374 Ser. No. 10/516,660

12. (Withdrawn)

13. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 or 3; wherein said resistor array for said high-voltage three-phase resistor circuit circuits as that is Y-connected is comprised of approximately ten resistor elements connected in series for an operating voltage of 6,600 V.

14. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 or 3, wherein said resistor array for said high-voltage three-phase resistor circuit circuits as that is Δ-connected is comprised of approximately sixteen resistor elements connected in series for an operating voltage of 6,600 V.

15. (Withdrawn)

l6. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 13, wherein said high-voltage three-phase resistor circuit circuits as that is Y-connected has a capacity of around and approximately 50.1kW.

Docket No. F-8374

Ser. No. 10/516,660

17. (Withdrawn)

18. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 14, wherein said high-voltage three-phase resistor eircuit circuits as that is Δ-connected has a capacity of around and approximately 83.52 kW.

19. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 or 3, wherein said high-voltage bank is comprised in parallel of one lower-capacity configuration bank of around and approximately 250 kW and three lower-capacity configuration banks of around and approximately 500 kW, said one lower-capacity configuration bank and said three lower-capacity configuration bank and said three lower-capacity configuration banks being comprised in parallel of five and ten high-voltage three-phase resistor circuits as Y-connected, respectively.

20. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 or 3, wherein said high-voltage bank is comprised in parallel of one lower-capacity configuration bank of around and approximately 250 kW and three lower-capacity configuration banks of around and approximately 500 kW, said one lower-capacity configuration bank and said three

lower-capacity configuration banks being comprised in parallel of three and six high-voltage three-phase resistor circuits as  $\Delta$ -connected, respectively.

- 21. (Currently amended) The [[A]] dry-type high-voltage load system apparatus of as described in claim 1, 2 of 3, wherein said low-voltage bank is comprised in parallel of two lower-capacity configuration banks of around and approximately 62.5 kW and one lower-capacity configuration bank of around and approximately 125 kW, said two lower-capacity configuration banks and said one lower-capacity configuration banks and said one lower-capacity configuration bank being comprised in parallel of a plurality of said low-voltage three-phase resistor circuits as Y- and Δ-connected, respectively.
  - 22. (Withdrawn)
  - 23. (Withdrawn)
  - 24. (Withdrawn)
- 25. (Currently amended) The [[A]] dry-typehigh-voltage load system apparatus of as described in claim 1, 2 or 3, wherein said high-voltage load system circuit is comprised by connecting mutually in parallel a voltmeter to said power cable on a side of said high-voltage power generator and an ammeter through an

overcurrent relay to said power cable on a bank side by intermediately positioning said central breaker, correcting a wattmeter to a position between said voltmeter and said arrmeter, and correcting a ground relay to said power cable bridging said power generator and said voltmeter.

- 26. (Withdrawn)
- 27. (Withdrawn)
- 28. (Withdrawn)
- 29. (Withdrawn)
- 30. (Currently amended) A method of preventing chain breaking and arc discharge for use with a dry-type high-voltage load system apparatus having a high-voltage load system circuit comprising: a low-voltage bank comprised of a plurality of lower-capacity configuration banks for a low-voltage resistor circuit circuits each comprised of a plurality of low-voltage three-phase resistor circuits connected in parallel to each of a plurality of switches connected in parallel to an output terminal of a transformer input terminal of which is connected to a central breaker; and a high-voltage bank comprised of a plurality of lower-capacity configuration banks for a

high-voltage resistor circuits each comprised of a plurality of high-voltage three-phase resistor circuits connected in parallel to each of a plurality of switches, said low-voltage bank and said high-voltage bank being connected in parallel to a high-voltage power generator through a said central breaker, comprising steps of:

providing said low-voltage three-phase resistor circuit and said highvoltage three-phase resistor circuit by means of resistor arrays in three phases, each of said resistor arrays being comprised of resistor elements connected in series, in a form of a Y-connection in which three resistor arrays are concentrated for reconciliation of their phases so that an isolated and independent neutral point uncorrected commonly to those of the other three-phase resistor circuits is formed, or in a form of a \( \Delta\)-connection in which each of terminals terminal of said resistor arrays in three phases is connected to each of in-phase branch distribution lines of a power cable, each of said resistor elements comprising: a cylindrical outer tube made of metal and having an outer peripheral surface that is without any spiral fin; electrode rods inserted respectively from both ends of said outer tube; a resistive heat-generating wire wound spirally and extending between inner ends of said electrode rods inserted respectively from both ends of said outer tube; an a solidified insulating material filling up a space within between an internal surface of said outer tube so as to encace said resistive heat-generating wire and with said electrode rods and an internal surface of said outer tube and fired; and cylindrical high-voltage proof insulating sleeves being without any fin; said high-voltage proof insulating sleeves surface of said cylindrical outer tube, said respective portions being adjacent to the both ends of the outer peripheral surface of said outer tube and anchored in portions adjacent to the both ends of said outer tube; and said insulating sleeves being to be positioned between said outer tube and one or more supporters and so that said outer said resistor element is supported by various the one or more supporters; and

preventing the arc discharge which may occur between said resistor elements and said supporters or mutually between said resistor elements arranged in parallel as well as the chain breaking which may occur through said terminals.

- 31. (Withdrawn)
- 32. (Withdrawn)
- 33. (Withdrawn)
- 34. (Withdrawn)
- 35. (Withdrawn)
- 36. (Withdrawn)

Docket No. F-8374

Ser. No. 10/516,660

37. (Currently amended) The [[A]] method of preventing chain breaking and arc discharge for use with a dry-type high-voltage load system apparatus of as described in claim 30, 31 or 32, wherein said resistor array for said high-voltage three-phase resistor circuit circuits as that is Y-connected is comprised of approximately ten resistor elements connected in series for an operating voltage of 6,600 V.

38. (Currently amended) The [[A]] method of preventing chain breaking and arc discharge for use with a dry-type high-voltage load system apparatus of as described in claim 30, 31 or 32, wherein said resistor array for said high-voltage three-phase resistor circuit circuits as that is Δ-connected is comprised of approximately sixteen resistor elements connected in series for an operating voltage of 6,600 V.

## 39. (Withdrawn)

40. (Currently amended) The [[A]] method of preventing chain breaking and arc discharge for use with a dry-type high-voltage load system apparatus of as described in claim 37, wherein said high-voltage three-phase resistor circuit circuits as that is Y-connected has a capacity of around and approximately 50. 1 kW.

41. (Withdrawn)

42. (Currently amended) <u>The [[A]]</u> method of preventing chain breaking and arc discharge for use with a dry-type high-voltage load system apparatus <u>of as described in claim 38</u>, wherein said high-voltage three-phase resistor <u>circuit circuits</u> as that is Δ-connected has a capacity of around and approximately 83.52 kW.